

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 October 2003 (09.10.2003)

PCT

(10) International Publication Number
WO 03/082118 A2

(51) International Patent Classification⁷: **A61B 8/08**

(21) International Application Number: **PCT/IB03/01127**

(22) International Filing Date: **27 March 2003 (27.03.2003)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
UD2002A000072 29 March 2002 (29.03.2002) IT

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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(54) Title: **METHOD TO IDENTIFY THE MECHANICAL PROPERTIES OF A MATERIAL**



(57) Abstract: Method to identify the mechanical properties of a material starting from at least a digitalized image of a sample of the material. The image of the sample to be analyzed is processed to achieve a numerical model comprising a determinate number of elementary geometric elements, or cells, to each of which a parameter to identify the type of matter is assigned, in order to obtain information on the distribution of the mechanical characteristics in the individual units of the sample, from which it is possible to trace both the elastic characteristics and hence the resistance, and also the distribution of stresses and strain in relation to the application of the loads.

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